DOCUMENT RESUME

ED 466 635 TM 03. 245

AUTHOR	Bensoussan, Yudit
TITLE	The Effectiveness of Mediation on Three Subtests of the Application of Cognitive Functions Scale, A Dynamic Assessment Procedure for Young Children.
PUB DATE	2002-06-05
NOTE	31p.; Master's Thesis, Touro College.
PUB TYPE	Dissertations/Theses - Masters Theses (042)
EDRS PRICE	EDRS Price MF01/PC02 Plus Postage.
DESCRIPTORS	Academic Achievement; *Cognitive Processes; Preschool Children; Preschool Education; Pretests Posttests; School Psychology; *Validity
IDENTIFIERS	*Dynamic Assessment; *Mediation; Subtests

ABSTRACT

The purpose of this study is to contribute to research regarding the Application of Cognitive Functions Scale (ACFS; C. Lidz and R. Jepsen, 1997), a newly developed dynamic assessment approach for the assessment of preschool children. The ACFS assesses the ability of children to apply their cognitive functions in areas that are related to the development of foundations for successful school achievement. This study examined the theory of dynamic assessment and reviewed the literature on dynamic assessment and school psychology. The study also examined the validity of three subtests within the ACFS procedure. Participants were 20 preschool children between the ages of 3 and 4 years. Results show significant pre- to posttest gains (with some exceptions noted) that suggest that practice effects alone do not account for the gains on the subtests. (Contains 3 tables and 20 references.) (Author/SLD)

Reproductions supplied by EDRS are the best that can be made
from the original document.

ED 466 635

THE EFFECTIVENESS OF MEDIATION ON THREE SUBTESTS OF THE APPLICATION OF COGNITIVE FUNCTIONS SCALE, A DYNAMIC ASSESSMENT PROCEDURE FOR YOUNG CHILDREN.

By:

Yudit Bensoussan

Thesis

Submitted to the Faculty of the

Graduate School of Education and Psychology

of Touro College

Under the direction of Dr. Carol Lidz

In partial fulfillment of the requirements for

the degree of

Masters of the Arts in

School Psychology

June, 2002

New York, New York

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

Y. Bensoussan

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

1

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

Approved:

Carol Lidz Psy.D.

Y. Kerpen Ph D

Date:

June 5, 2002

June 5, 2002

TM034245

BEST COPY AVAILABLE

Graduate School of Education and Psychology

A STUDY OF THE EFFECTIVENESS OF MEDIATION ON THREE SUBTESTS OF THE APPLICATION OF COGNITIVE FUNCTIONS SCALE, A DYNAMIC ASSESSMENT PROCEDURE FOR YOUNG CHILDREN

Yudit Bensoussan

Thesis under the direction of Professor Dr. Carol Lidz

ABSTRACT

The purpose of this study is to contribute to research regarding the Application of Cognitive Functions Scale (ACFS), a newly developed dynamic assessment approach for the assessment of preschool children. The ACFS assesses the ability of children to apply their cognitive functions in areas that are related to the development of foundations for successful school achievement. This study examines the theory of dynamic assessment, reviews literature and related approaches while explaining its unique link to the field of school psychology. In addition, this study examines the validity of three subtests within the ACFS procedure. Results found significant pre to post test gains (with exceptions noted in the discussion) which suggest that practice effects alone do not account for the pre to post test gains on the subtests.

Approved:_____Date:_____

ACKNOWLEDGEMENTS

To my parents who's support and guidance encourage me to follow my dreams.

To Dr. Lidz who's guidance and advice made this project possible.

To my supervisors Dr. Evie Falda and Sorele Witkis for guiding me through my internship with wisdom, expertise and professionalism.

Last but not least, I thank my husband and children for their love and support.

TABLE OF CONTENTS

Page

ACKNOWLEDGEMENTS....ii

LIST OF TABLES....iv

Chapter

I. INTRODUCTION....1

II. RESEARCH REVIEW

Overview of Dynamic Assessment....2
Dynamic Assessment Procedures....5
Dynamic Assessment for the Preschool Child....9
Application of Cognitive Functions Scale....11

III. METHOD

Participants....16
Measures....16
Procedure....17

IV. RESULTS

Data Analysis....19

V. DISCUSSION & CONCLUSION....21

VI. REFERENCES....23

LIST OF TABLES

Table Page

1. t test comparing the means of E and C groups.....18
2. t test comparing pre and post test gains obtained by AM, PT, and VP groups.....19
3. t test comparing pre to post test gains across all subtests in favor of E group.....19-20

Introduction

Traditional methods of assessing mental ability are based upon the belief that intelligence exists as a more or less fixed entity. Expressions of growing dissatisfaction toward this approach to assessment have proliferated, resulting in attempts to both modify existing procedures and develop novel assessment approaches (Tzuriel & Haywood, 1992). Thus, dynamic assessment developed as a reaction to dissatisfaction with existing practice as well as an attempt to provide a meaningful description of cognitive functioning (Lidz, 1996). Dynamic assessment's test-intervention-retest model is based on the belief that a child's processes of learning can change in response to intervention (Lidz, 1996). Closely related to this idea is Vygotsky's notion of the zone of proximal development (ZPD), the area in which a child can perform above his/her level of independent functioning with the intervention of an experienced collaborator (Lidz, 1996).

Dynamic assessment allows the evaluator to examine the learning processes of a child, explore his/her patterns of learning, and determine how to best instruct the child (Lidz, 1996), directly linking the results of the assessment to the child's learning experience in the classroom (Lidz, 1991). Due to its relevance to the classroom and ability to examine the learning process, providing the preschool population with this assessment can be valuable in determining factors that may impede a child's later learning abilities in school (Haywood & Tzuriel, 1992).

In an attempt to create a model of this assessment for the development of preschool interactive procedures, Lidz and Jepsen (1997) developed the Application of Cognitive Functions Scale (ACFS). The ACFS is a curriculum-based dynamic assessment that attempts to "assess how children apply cognitive and meta-cognitive functions that are related to typical preschool curriculum demands" (Lidz, 2000).

The ACFS is a new procedure and thus the research base available to date is limited. Therefore, the purpose of this study is to contribute to the evidence regarding reliability and construct validity in three of the six subtests. Specifically, this study investigated the effect of intervention on the Perspective Taking subtest, the Verbal Planning subtest and the Auditory Memory subtest of the ACFS. In an attempt to rule out practice effects, the tests were administered twice with and without intervention. This addresses construct validity as well, since, according to the dynamic assessment model there should be a significant increase in scores following assessment-embedded interventions. In addition, this study examines the experimental group dividing them into high and low scoring pretest groups in an attempt to see which of the groups profited the most from the intervention.

Research Literature Review

Overview of Dynamic Assessment:

As educational practices advance from traditional rote memory learning to approaches more closely reflective of the cognitive education literature, assessment measures are changing as well. Traditional methods of assessment inadequately consider the so-called non-intellective factors of motivation and social adequacy that are relevant to the in depth understanding of effective human functioning. In addition, these tools are said to contain bias toward minority and special education groups. Furthermore, traditional measures lack adequate information relevant to intervention, teaching and remediation processes (Tzuriel & Haywood, 1992).

In response to the growing dissatisfaction and shift of educational practices, dynamic assessment procedures have emerged. Dynamic assessment raises questions about our current conceptualizations of intelligence and focuses on the learner's ability to profit from instruction and intervention (Lidz, 1991). Unlike the traditional models of assessment which focus on processes that have already been learned, dynamic assessment examines learning in process, the child's ability to learn with the help of an experienced collaborator (Lidz, 1991). Dynamic assessment offers information about the learner's zone of proximal development- the facilitated performance, and provides educators with the information needed to facilitate successful learning (Lidz, 1997). Thus, according to Lidz (1997), by examining the child's learning process, one can "develop and explore the hypothesis about the nature of obstructions to and effective facilitations of the child's performance" (p.22).

Central to the conceptualization of dynamic assessment is Vygotsky's notion of the zone of proximal development (ZPD) (Lidz, 1996). Viewed as a necessary component of assessment, the ZPD added to the zone of actual development, represents a meeting place of the learner's internal mental world and the learner's external social or cultural influences (what the child is able to accomplish with the help of mediation). Thus, it becomes possible to explore the child's functioning as well as determine the next step of instruction (Lidz, 1999).

While dynamic assessment models vary, there are some generally agreed upon characteristics. As described by Lidz (1999) " The most unique characteristic of dynamic assessment is the inclusion of intervention as an integral aspect of the assessment experience" (p. 284). The intervention is typically administered in a pretest-intervention-posttest format. A baseline and zone of actual development is established with the administration of the pretest followed by the intervention or mediation in which information is given in the form of problem solving techniques and rules. Lastly, the posttest is administered in an attempt to examine metacognitive processes and responsiveness to intervention (Lidz, 1996).

The interventions vary with regard to content and degree of standardization. For instance, Feuerstein (in Lidz, 1991), a pioneer in the field of dynamic assessment, chooses content that is not academic, relating to his experiences with older learners who have had unsuccessful school histories. Alternatively, as explained by Lidz (1996), Campione and Brown "provide a series of graduated prompts that follow the commission of an error in the learner's solution of a task. These prompts are predetermined,

standardized and graduated in terms of explicitness and approximation to the correct response"(p.285). However, the pretest-intervention-posttest format affords the examiner the opportunity to explore the learner's ZPD, and information about the tools needed to promote optimal learning.

A second defining characteristic of dynamic assessment is the assumption of learner modifiability, which " refers to both the amount of change made by the learner in response to the interventions provided, and the learner's increased implementation of the relative metacognitive processes in problem solution" (Lidz, 1991 p. 4). Thus, there is information about how well the child is able to generalize the newly developed information to other aspects of learning.

The third defining characteristic of dynamic assessment is its process-oriented design and interpretation of the tasks which links intervention in the classroom directly to the assessment by embedding mediation within the assessment. This allows the assessor throughout the intervention phase to record interventions that appear to work and those that do not, allowing for appropriate suggestions for interventions in the classroom. In addition, dynamic assessment provides information regarding functional and dysfunctional metacognitive processes, as well as information regarding the intensity of the information involved in producing change (Lidz, 1991).

Dynamic Assessment Procedures

The Learning Potential Assessment Device developed by Reuven Feuerstein (1979), incorporates the belief that many children who achieve low IQ scores do so

because of the lack of what he and his colleagues have termed Mediated Learning Experiences. According to Feurstein, human beings have the unique capacity to modify their cognitive functions and adapt to changing life demands. The focus of the assessment is not on academics, but rather, on signs of modifiability in which the examiner observes specific cognitive functions related to learning. The results of the assessment are thus interpreted as representing what the learner can achieve if he/she experiences appropriate mediation (Tzuriel &. Haywood, 1992).

Campione and Brown's (1987) graduated prompts procedure involves counting the number of increasingly explicit hints the learner requires for mastery or completion of a task. In this approach it is the task rather than the learner that is focused upon. Learner performance is described in terms of the number of cues required to achieve mastery (Lidz, 1997). The procedure assumes that the fewer the number of prompts, the greater the ability of the individual to generalize knowledge to novel situations (Campione & Brown, 1987).

The Learning Potential assessment developed by Budoff (1987), provides valuable diagnostic information to the teacher and allows for the screening of students who require more individualized attention (Lidz, 1996). The procedure is standardized and scripted using generic cognitive tasks to differentiate between retarded and pseudo-retarded learners. This assessment involves a test-teach-retest model in which the students gage their success by checking their strategy to problem solving.

Swanson (1995) introduced a dynamic approach in which hints are presented to the participant upon failure of an item. Swanson's Cognitive Processing Test (S-CPT) is a

graduated prompt-like approach in which the hints provide opportunities for the learner to problem solve.

In addition to the aforementioned approaches, according to Lidz (1996) "There is a substantial European contribution to the development of dynamic assessment procedures that has until recently not been accessible to English readers (p.290)." These procedures (Hammers of the Netherlands and Guthke of Germany) have made contributions and the information has recently become available to English speakers in Hamers, Sijtsma and Ruijssenaars (1993). Their procedures involve generic tasks, as well as addressing domains of reading and math and incorporate standardized interventions often involving graduated prompts (Lidz, 1997).

Generally, dynamic assessment approaches are examples of a model with implied procedures which represent an attitude as well. That attitude is that a child can learn if sufficient time and effort is spent to discover how the child can best benefit from intervention (Lidz, 1991). This assessment approach has proven valuable when assessing children from culturally diverse backgrounds, special education children and children for whom English is a second language.

For example, children for whom English is a second language face a variety of language related issues when given a standardized assessment. Semantics, syntax, and style of communication are examples of areas in which they may have difficulty. If translation is attempted, accuracy and distortion as well as standardization issues arise. In addition, language items may be culturally loaded and a child who does not speak the language may not have had the experience and will thus fail the item. Dynamic

assessment is a better tool for assessing these children's learning abilities in that less prior knowledge of an experience is needed, the interaction between the assessor and the child is examined and children may respond in a variety of ways not specific to any one cultural style (Lidz, 1997).

Dynamic assessment includes a reduced reliance on prior knowledge and experience. That is to say, the information needed to solve a problem is usually given during the course of the assessment, reducing the consequences of the difference between capacity and performance. In addition, the assessment steers away from emphasis on the child's deficiencies, as well as issues of classification and placement, and focuses on the positive development of the child's competence and discovery of what does and does not work. This gives the assessor the responsibility of discovering the competence of a child and at the same time creates a less threatening testing environment for the child (Lidz, 1997).

When dealing with children in special education programs, dynamic assessment can be especially useful. Traditional methods of assessment often underestimate the intellectual ability of a special needs child. However, when assessing a child using this approach the child's learning potential and how to best tap into it can be assessed with direct implications for how the child should be taught in the classroom (Gerber, Semmel & Semmel, 1994).

Dynamic Assessment for the Preschool Child:

Initially developed for older school age children, dynamic assessment was not considered explicitly a preschool procedure (Lidz, 1991). Most developmentalists agree that children are not born with metacognition fully developed, and that true dynamic assessment seems applicable only to children with at least emerging metacognitive process capabilities (Lidz, 1991). However, in a review of the literature regarding cognitive functioning in children, Lidz and Thomas (1987) noted that many metacognitive processes begin to emerge from the ages of 3-5. These include self regulation, early logic, early deductive reasoning, and signs of the ability to derive and apply strategies. Thus, dynamic assessment procedures for the preschool population can address these cognitive functions as well as a young child's distractibility, inclination for play, and inconsistency in performance (Tzuriel & Haywood, 1992).

In an attempt to create a model for the development of preschool interactive assessment procedures, a number of researchers have designed approaches. Tzuriel and Klein (1987) developed the Children's Analogical Thinking Modifiability Test (CATM). The tasks are child friendly (colorful blocks and game-like procedures) and include the manipulations of objects as a means of bridging from concrete to abstract. The procedure follows a test-intervention-retest format, preceded by a stage in which the task demands are reviewed. The authors suggest that this design coupled with the effects of dynamic assessment (the response to and control of non intellective variables such as motives, feelings), allow the child to function on a higher level than he would on a static assessment (Tzuriel & Klein 1987).

Lidz & Thomas (1987), designed an extension of two sub-tests of the Kaufman Assessment Battery for Children as a dynamic assessment of young children. The researchers administered these tests before and after a session of mediated teaching. The experimental group received mediation and the control group was exposed to the materials for a similar length of time without mediation. Results showed that mediation was effective in producing a higher gain in results. Reinhardt (19) applied this procedure with preschool children with developmental delays and also documented significant pretest to posttest gains in the children who experienced mediation, while those in the unmediated control group did not improve. Moreover, when the children were retested at a later date, the mediated group showed additional gains, while the unmediated controls did not.

Burns, Delclos, Vye and Sloan (1996) examined the cognitive strategies that children used before their dynamic assessment and how they changed as a result of the procedure. The cognitive task used in the procedure was an adaptation of the Stencil Design Test-1 of the Arthur Point Scale of Performance Test Form 1940 Revision. Each child was given stencils to recreate a design. Results showed that these children with mild handicaps made significant increases in performance after receiving mediation, but not after receiving hinting or standard assessment treatment sessions. Normally developing children had significant increases after each treatment with the greatest gains after receiving dynamic assessment mediation. The mediated intervention was the most successful in promoting generalization.

Waters and Stringer (1997) created the Bunny Bag dynamic assessment procedure for use with preschool children with complex communication needs. Consisting of three stages, input, elaboration and output, the child is presented with familiar toys and various developmental and cognitive functions are assessed. For instance, at the elaboration phase the assessor explores the child's ability to sequence in a series of steps when using the item presented. This play- based procedure can thus provide an estimated developmental age, an account of emerging cognitive functions and the nature and the amount of mediational support a child requires.

The Application of Cognitive Functions Scale (ACFS)

Lidz and Jepsen (1997) developed the Application of Cognitive Functions Scale (ACFS), a curriculum based dynamic assessment for use specifically for preschool age children. The ACFS consists of six subscales that represent learning processes that are typically required for success in most American preschool programs. The ultimate goal of the assessment is to inform instruction and to have a means of relating assessment to instruction and intervention. Results of the assessment are indicative of the degree to which the child has mastered a particular task and his response to mediation. In addition a behavior rating scale is included in the assessment procedure. This scale allows the assessor to track the child's behavior across the battery of tasks and evaluate the child's metacognative and non intellective responses to the interactions during the assessment procedure (Lidz, 2000).

The research base available on the psychometric properties of the ACFS to date is limited, but there are a number of studies that address issues of validity and reliability.

The primary source of construct validity evidence for the effectiveness of intervention is based upon the hypothesis that, since dynamic assessment procedures are most typically administered in a pretest-intervention-posttest format, the expectation is that group scores from the pre to the posttest should increase. The first study of this issue included 30 pre-kindergarten and kindergarten high functioning students attending a private school in New York City. The study found significant pretest to posttest gains for three of the (then) five subtests: Classification, Auditory Memory, and Visual Memory, with the two memory tests showing the greatest improvement. The results were similar for children in both grade levels. As a result of the study, the Verbal Planning and Sequential Pattern Completion tasks were revised, and the Classification task was adjusted to the ceiling for high functioning children. Following the study, the Planning task was redesigned and split to create two subtests: Verbal Planning and Perspective taking. In addition, the Sequential Pattern Completion task was completely redesigned (Lidz, 2000).

A study of reliability of one subtest from the ACFS was conducted by Brooks (1997). The assessor administered the Classification subtest of the ACFS to 22 preschool children with developmental disabilities. The focus of the study was potential practice effects. 11 students received mediation and 11 children were the controls (received only pre and posttest). Results showed that only those children who received the mediation were able to successfully move to the higher level of functioning, that is, from merely building with the blocks, to creating groups of blocks based on abstracted attributes of color, shape and size (Lidz,2000).

Shurin (1998), conducted a study of the ACFS with 26 four year old children, all but 5 with diagnosed developmental disabilities. Pretest to posttest gains, and the Behavior Rating Scale were studied. Significant gains were found for Classification, Perspective Taking, Verbal Planning and Sequential Pattern Completion. The subtests that did not show significant gains were both memory subtests. Practice effects could not be ruled out due to the fact that there was no control group of non-mediated learners. Yet, construct validity was supported by the significant gains. Due to the fact that this study's results are dramatically different than the aforementioned regarding the memory tasks, the findings requires further study as to the implications of utility of these subtests for differentiating children with and without developmental disabilities (Lidz, 2000).

With regard to the Behavior Rating Scale aspect studied by Shurin (1998), results showed that the scale seems to be strongly measuring persistence, frustration tolerance, and flexibility.

Levy (1999) conducted a study of the ACFS which included 22 preschool children between the ages of 4.0 and 4.11. Eleven of the children were special needs and eleven were typically developing preschoolers. The study's purpose was to examine the ability of the ACFS to discriminate between the two groups. While there were significant differences between the groups on pretest scores for only one subtest, significant differences were found with regard to posttest scores for four subtests, suggesting that the posttest seems to be the better discriminator between the groups. This finding supports the discriminant validity of the ACFS.

In addition, Levy studied the Behavior Rating Scale and found that behavior ratings during mediation (compared to the pretest) showed the most significant differences between groups. This is thought to be due to the fact that the ACFS is verbally loaded and typically developing students are more receptive to the ACFS procedure. Thus the ACFS may underestimate the functioning of a child with language disorders (Levy, 1999).

Malowitzky (2001) investigated the reliability and validity of two subtests of the ACFS procedure. 30 preschool children were divided into those who received mediation and those who did not. The study found significant pre to post test gains for one of the mediated subtests and no significant gains for the unmediated subtests, suggesting that practice alone can not account for pre to post test gains. The study also documented the test-retest reliability of the unmediated subtests.

Each of the studies mentioned above studied various psychometric properties of the ACFS. The current study adds to the current research base regarding reliability and the possibility of practice effects in the three remaining subtests that have not yet been explored. This study investigates the following hypotheses:

1. There will be no significant difference between the E (Experimental) and C (Control) group on either the (a) PT (Perspective Taking), or (b)VP (Verbal Planning), or (c) AM (Auditory Memory) pretests.
2. Within the E group there will be a significant difference between pre and post scores for the (a) PT, (b) VP or (c) AM subtests, there will be no significant pre-post test gains for the C group.

3. There will be a significant difference between group E and C groups on the (a)PT, (b)VP and (c)AM posttests in favor of the E group.

Method

Participants:

The participants in the study were 20 preschool children between the ages of 3.0 and 4.0 years of age, all of whom attended a regular education preschool program in the Cleveland, Ohio area. The participants' background and socioeconomic class varied across a range of middle to upper class and all were Caucasian. Parents were given a brief explanation of the study and asked to sign a consent form.

Measures:

The Application of Cognitive Functions Scale (ACFS) (Lidz & Jepsen, 2000) is a dynamic assessment procedure developed for use with children functioning between the ages three to five. This assessment consists of six subscales of which three are used for this study: (subtests with an * before them represent those tests used in this study)

1. **Classification:** measures the child's ability to group and classify blocks with varying attributes.
2. *** Perspective Taking:** measures the child's ability to communicate with another person in a way that reflects awareness of an another's point of view.
3. *** Verbal Planning:** measures a child's ability to relate a plan for completing a common activity.
4. *** Short Term Auditory Memory:** measures a child's ability to recall and sequence a short story immediately after hearing it.

5. **Short Term Visual Memory:** measures children's ability to recall a series of objects placed in front of them.
6. **Sequential Pattern Completion:** measures a child's ability to complete a sequential pattern.

Procedure:

Initially consent was attained from the preschool director to conduct the study. A consent form was then sent to the parents of each eligible child which explained the nature and purpose of the study.

The author of this study was taught how to administer the ACFS by Dr. Lidz and scoring was done collaboratively to ensure correct calculations. The children were assessed individually by the researcher in a quiet empty classroom within the school.

The children were divided into Control and Experimental groups by the use of a table of random numbers. As each consent form was given to the assessor, a number was assigned to the form and then the odd and even numbers were divided into the E and C groups.

Results

Data Analysis:

Hypothesis one proposes no differences between the Experimental and Control groups on either the Perspective taking, Verbal Planning or Auditory Memory pretests. Table 1 contains the results of t tests comparing the means of these groups.

Table 1:

Subtest	Mean Difference	t	p
Auditory Memory	-1.00	-1.32	NS
Perspective Taking	-2.40	-2.54	.03
Verbal Planning	-.20	-.14	NS

The results in table 1 show that the groups were equivalent regarding their AM and VP scores, but not with regard to the PT group. The Control group had significantly higher PT scores than the Experimental Group.

The second hypothesis questions the pre to post test gains obtained by each group. These results are shown in Table 2.

Table 2:

Subtest	Mean Difference	t	p
Experimental			
Auditory Memory	6.10	9.28	<.0001
Perspective Taking	4.80	6.74	<.0001
Verbal Planning	4.70	5.57	.0003
Control			
Auditory Memory	0.00	0.00	NS
Perspective Taking	.10	0.22	NS
Verbal Planning	2.00	2.58	.03

Results of Table 2 indicate that all groups receiving mediation made highly significant gains. Children in two of the three groups not receiving mediation did not make significant gains. Of the group that did make a significant gain (VP), the gain was not as significant as those in the mediation group.

The third hypothesis proposes that there will be a significant difference between the Experimental and Control groups on the PT, VP, and AM post tests in favor of the Experimental groups following the intervention. The results are shown in Table 3.

Table 3:

Subtest	Mean Difference	t	p
Auditory Memory	5.10	4.17	.002

Perspective Taking	2.50	5.51	.004
Verbal Planning	6.50	5.98	.0002

Table 2 shows that the Experimental group across all conditions obtained post-test scores significantly higher than those of the Control group. That is, that children exposed to the mediation obtained significantly higher scores than those who were not exposed to mediation.

Discussion and Conclusion

The purpose of this study was to explore the validity and reliability of the ACFS. Specifically, the Auditory Memory, Perspective Taking and Verbal Planning subtests were investigated.

The results with regard to the lack or presence of "practice effects", are addressed in tables 2 and 3, where those children receiving mediation did make significant gains, while those not receiving the mediation did not, with the exception of Verbal Planning. Without the mediation and despite the repeated exposure to the task, the scores of the AM and PT tests did not change. With regard to the VP test, while those in the group obtained scores showing a highly significant difference between E and C groups, the VP test may be more prone to practice effects, since those not receiving mediation did obtain significantly higher scores upon the second administration.

Although there were no significant differences between the E and C groups for the AM and VP subtest, the PT Control Group had significantly higher scores than the Experimental Group. However, despite the initially higher pretest scores of the C group, they were outperformed by the E group following mediation.

This study documents the effectiveness of mediated intervention in producing gains for the three subtests studied, although some degree of practice effects for verbal planning can not be ruled out. Some of the subtests (AM and PT) showed test-retest stability in their lack of significant gains for the C group.

Together with the studies of Brooks (1997) and Malowitzky (2001), there is evidence of stability for the non-mediated ACFS subtests, with the exception of VP.

The ACFS, mediation and validity

Cumulative results from all of the ACFS research to date documents responsiveness of the subtests to mediation.

Whereas these studies have all involved relatively small numbers of children, there is consistency in their support of the validity and reliability of the ACFS subtests. The consistency includes a variety of children, with and without developmental delays, though showing limitations for children with significant language impairment.

The current study is limited in its small number and restriction in location. In addition, one assessor was used for both groups of children, and was necessarily aware of the nature of the study and the nature of the E and C groups.

The ACFS is showing promise of being a useful tool for school psychologist's working with young children yet, its ability to generate information relating to usefulness of classroom instruction remains to be investigated.

References

Brooks, N.D. (1997). An exploratory study into the cognitive modifiability of preschool children using dynamic assessment. Unpublished master's thesis; University of Newcastle-Upon-Tyne; Newcastle, United Kingdom.

Budoff, M. (1987). Measures of assessing learning potential. In C.S. Lidz (Ed.), Dynamic Assessment (pp.173-195). New York: Guilford Press.

Burns, M.S., Delcos, V.R., Vye, N.J., & Sloan, K. (1996). Changes in cognitive strategies in dynamic assessment. In M. Luther E. Cole & P. Gamlin (Eds.), Dynamic assessment for instruction from theory to application (pp. 96-107). Captus University Publications.

Campione, J.C., & Brown, A.L. (1987). Linking Dynamic assessment with school achievement. In C.S. Lidz (Ed.), Dynamic assessment: An iteractional approach to evaluating learning potential (pp. 82-115). New York: Guilford Press.

Gerber, M.M., Semmel, D.S., & Semmel, M.I. (1994). Computer based dynamic assessment of multidigit multiplication. Exceptional Children, 61 (2), 114-125.

Hamers, J.H.M., Sijtsma, K., & Ruijssenaars, A.J.J.M. (Eds.). (1993). Learning potential assessment: Theoretical, methodological and practical issues. In Lidz dynamic assessment approaches. In D.P. Flanagan, J.L. Genshaft & P.L. Harrison (Eds.),

Contemporary intellectual assessment: Theories, tests, and issues (pp. 281-296). New York: Guilford Press.

Haywood, H.C., Tzuriel, D. (1992). The development of interactive dynamic approaches to assessment of learning potential. In H.C. Haywood & D. Tzuriel (Eds.), Interactive assessment (pp.38-61). New York: Springer-Verlag.

Levy, C. (1999). The discriminant validity of the Application of Cognitive Functions Scale (ACFS): A performance comparison between typically developing and special needs preschool children. Unpublished master's thesis: Touro College (New York, USA).

Lidz, C.S. (1991). Practitioner's guide to dynamic assessment. New York: Guilford Press.

Lidz, C.S. (1996). Dynamic assessment approaches. In D.P. Flanagan, J.L. Genshaft & P.L. Harrison (Eds.), Contemporary intellectual assessment: Theories, tests, and issues (pp. 281-296). New York: Guilford Press.

Lidz, C.S. (1997). Dynamic assessment: Restructuring the role of school psychologists. Communique,25 (8), 22-24.

Lidz, C.S. (2000). The application of the Cognitive Functions Scale (ACFS), an example of curriculum based dynamic assessment. Dynamic Assessment: Prevailing Models and Applications (6) 407-439.

Lidz, C.S., & Jepsen, R.H. (2000). The Application of Cognitive Functions Scale, administration manual. New York: Graduate school of Education and Psychology, Touro College.

Lidz, C.S., & Thomas, C. (1987). The Preschool Learning assessment device: Extension of a static approach. In C.S. Lidz (Ed.), Dynamic assessment: An interactional approach to evaluating learning potential (pp. 288-309). New York: Guilford Press.

Malowitzky, M. (2001). Investigation of the effectiveness of the mediation portion of two subtests of the Cognitive Functions Scale, A dynamic assessment procedure for young children. Unpublished master's thesis; Touro College, New York.

Reinhardt, ???

Shurin, R. (1998). Validity and reliabiltiy of the Cognitive Functions Scale with preschool children with disabilities. Unpublished master's thesis; Touro College, New York, N.Y. ERIC document TM 030312.

Swanson, H.L. (1995). Using the Cognitive Processing Test to assess ability: Development of a dynamic assessment procedure. School Psychology Review, 24 (4), 672-693.

Tzuriel D. & Klein, P.S. (1987). Assessing the young child: Children's analogical thinking modifiablitiy. In C.S. Lidz (Ed). Dynamic assessment: An interactional approach to evaluating learning potential (pp. 268-286). New York: Guilford Press.

Waters, J., & Stringer, P. (1997). The Bunny Bag: a dynamic approach to the assessment of preschool children. Educational and Child Psychology, 14 (4), 33-45.

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement (OERI)
Educational Resources Information Center (ERIC)

REPRODUCTION RELEASE
(Specific Document)

TM034245

I. DOCUMENT IDENTIFICATION:

Title: The Effectiveness of Mediation on Three Subtests of The Application of Cognitive Functions Scale, A dynamic assessment Procedure for Young Children

Author(s): Yudit Bensoussan

Corporate Source: TOURO College

Publication Date: June 5, 2002

II. REPRODUCTION RELEASE:

In order to disseminate as widely as possible timely and significant materials of interest to the educational community, documents announced in the monthly abstract journal of the ERIC system, Resources in Education (RIE), are usually made available to users in microfiche, reproduced paper copy, and electronic/optical media, and sold through the ERIC Document Reproduction Service (EDRS) or other ERIC vendors. Credit is given to the source of each document, and, if reproduction release is granted, one of the following notices is affixed to the document.

If permission is granted to reproduce the identified document, please CHECK ONE of the following options and sign the release below.

__✓__ Check here for Level 1 Release, permitting reproduction and dissemination in microfiche and other ERIC archival media (e.g. electronic) and paper copy.

or

_____ Check here for Level 2A release, permitting reproduction and dissemination in microfiche and in electronic media for ERIC archival collection subscribers only.

or

_____ Check here for Level 2B release, permitting reproduction and dissemination in microfiche only.

Documents will be processed as indicated provided reproduction quality permits. If permission to reproduce is granted, but neither box is

checked, documents will be processed at Level 1.

Sign Here, Please

I hereby grant to the Educational Resources Information Center (ERIC) nonexclusive permission to reproduce this document as indicated above. Reproduction from the ERIC microfiche or electronic media by persons other than ERIC employees and its system contractors requires permission from the copyright holder. Exception is made for non-profit reproduction by libraries and other service agencies to satisfy information needs of educators in response to discrete inquiries.

Signature: Yudit Bensoussan Position: Student

Printed Name: Yudit Bensoussan Organization: Touro College

Address: 1336 E. 10th ST. Telephone Number: ( )

Brooklyn, NY 11230 Date: June 5, 2002

III. DOCUMENT AVAILABILITY INFORMATION (FROM NON-ERIC SOURCE):

If permission to reproduce is not granted to ERIC, or, if you wish ERIC to cite the availability of this document from another source, please provide the following information regarding the availability of the document. (ERIC will not announce a document unless it is publicly available, and a dependable source can be specified. Contributors should also be aware that ERIC selection criteria are significantly more stringent for documents which cannot be made available through EDRS).

Publisher/Distributor:

Address:

Price Per Copy: Quantity Price:

IV. REFERRAL OF ERIC TO COPYRIGHT/REPRODUCTION RIGHTS HOLDER:

If the right to grant a reproduction release is held by someone other than the addressee, please provide the appropriate name and address:

Name:

Address:

V.WHERE TO SEND THIS FORM:

Send this form to the following ERIC Clearinghouse:

You can send this form and your document to the ERIC Clearinghouse on Assessment and Evaluation. They will forward your materials to the appropriate ERIC Clearinghouse.

ERIC Acquisitions
ERIC Clearinghouse on Assessment and Evaluation
1129 Shriver Laboratory (Bldg 075)
University of Maryland, College Park
College Park, MD 20742

(800) 464-3742
(301) 405-7449
eric_ae@ericae.net
http://ericae.net